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BUOY LIST  
NINTH DISTRICT  
UNITED STATES  
1925

UNITED STATES  
DEPARTMENT  
OF COMMERCE

LIGHTHOUSE  
SERVICE





DEPARTMENT OF COMMERCE  
U. S. Lighthouse Service

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WEST INDIES OF THE UNITED STATES

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BUOY LIST  
PORTO RICO AND ADJACENT ISLANDS

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NINTH LIGHTHOUSE DISTRICT

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1925

(CORRECTED TO NOVEMBER 1)



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WASHINGTON  
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N. S. Kent.  
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## INTRODUCTION AND EXPLANATION OF TABLES.

This list describes all aids to navigation maintained by or under the authority of the United States Department of Commerce on the coast of Porto Rico and adjacent islands, Navassa Island, and Guantanamo Bay, Cuba.

**Arrangement of List.**—The aids are arranged as nearly as practicable in the order in which they are used, commencing at San Juan Harbor and following clockwise around the island to the point of beginning. The aids of the several harbors, etc., are arranged in regular order, beginning at each entrance under separate references. In some instances aids have been repeated for convenience in navigation.

Names of aids are printed in this List as follows:

**PRIMARY SEACOAST LIGHTS.**

Secondary Lights.

RIVER, HARBOR, AND OTHER LIGHTS.

LIGHTED BUOYS.

Unlighted fixed aids.

Unlighted Buoys.

**Other publications.**—The Department of Commerce publishes annually a Light List for the Atlantic and Gulf coasts, including Porto Rico, which includes all lighted aids and fog signals. The department also publishes annually for each lighthouse district a Buoy List similar to this.

As far as the location of buoys and other aids to navigation is concerned, the charts are a preferable source of information.

Buoy and light lists of the Department of Commerce are for sale by the Superintendent of Documents, Washington, D. C., and by the sales agencies.

Charts, Coast Pilots, Tide Tables, and Current Tables of the waters covered by this List are published by the Department of Commerce and are for sale by the United States Coast and Geodetic Survey; they are also for sale by the sales agencies.

**Correction of Light and Buoy Lists.**—The Lists are corrected to the date of publication as printed on the title-page. The mariner is cautioned that the latest List must be used. It is not practicable for the department to correct individual copies, but "Notice to Mariners" is published weekly, announcing all changes in aids to navigation. The navigator should keep his Lists, as well as his charts, corrected from these notices, and should consult all notices issued after the date of publication of the List.

The weekly Notice to Mariners will be mailed regularly, free of charge, to any mariner who will apply to the Department of Commerce, through the Division of Publications, Washington, D. C.

**Defects in aids to navigation.**—Mariners are requested to report direct to the Superintendent of Lighthouses, San Juan, P. R., by radio or other prompt means, defects in aids to navigation.

Recommendations as to aids to navigation, or their improvement, or reports of aids no longer needed, should be mailed to the above address, or to the Department of Commerce, through the Commissioner of Lighthouses, at Washington, D. C.

Information respecting dangers, changes in shoals and channels, and other facts of interest affecting charts and coast pilots should be sent to the Department of Commerce through the Coast and Geodetic Survey, Washington, D. C.

**Laws for the protection of aids to navigation.**—Whoever shows any false light with intent to bring any vessel into danger or shipwreck shall be imprisoned not less than 10 years and may be imprisoned for life.

It is unlawful for any person to interfere with any aid to navigation or to anchor any vessel in navigable waters of the United States so as to obstruct range lights, and any person so doing may be fined \$500 for each offense, and each day during which such violation continues shall be considered a new offense.

It is unlawful for any person, corporation, or municipality to establish or maintain in the navigable waters of the United States any aid to navigation similar to those maintained by the Department of Commerce without first obtaining permission from the Department of Commerce through the Commissioner of Lighthouses; and any person so doing may be fined \$100 for each offense. (Regulations governing the establishment of private aids to navigation are given in Department of Commerce Circular No. 213, fourth edition, April 12, 1924).

Porto Rico has passed laws providing penalties to be paid by persons interfering in any manner with the aids to navigation established and maintained by the United States.

**Collisions of vessels with lightships, buoys, and other aids to navigation.**—The licensed officer in command of a vessel colliding with any aid to navigation must report the collision promptly to the Department of Commerce through the nearest board of local inspectors of steamboats.

**Bearings** are in *degrees true*, reading clockwise from 0° at N. to 360°; bearings relating to visibility of lights are given as observed from a vessel.

**Distances** are in *nautical miles*, unless otherwise stated.

**Heights** are referred to *mean high water*.

**Depths** are referred to *mean low water*.

**Unwatched lights.**—"U" after the name of a light indicates that the light is unwatched; gas buoys are also unwatched. These unwatched lights may become irregular or extinguished, although a high degree of reliability has been attained with such apparatus.

Reliance must not be placed on lighted buoys maintaining their exact positions; in cases of uncertainty it is safer to navigate by bearings or angles to fixed objects on shore, and by soundings.

**Character of lights.**—To avoid confusion between lights, they are given distinct characteristics. These are indicated by abbreviations, as follows:

(1) Lights which do not change color.	Characteristic phases.	(2) Lights which do change color (showing alternately white and red in various combinations).
<b>F.</b> —Fixed.....	A continuous steady light.....	<b>Alt.</b> —Alternating.
<b>Fl.</b> —Flashing.....	(a) Showing a single flash at regular intervals... (b) A steady light with total eclipses.	<b>Alt. Fl.</b> —Alternating flashing.
<b>F. Fl.</b> —Fixed and flashing....	A fixed light varied at regular intervals by one or more flashes, usually of greater brilliancy. A flash is preceded and followed by a diminution of light or an eclipse.	<b>Alt. F. Fl.</b> —Alternating fixed and flashing.
<b>Gp. Fl.</b> —Group flashing.....	Showing at regular intervals groups of flashes...	<b>Alt. Gp. Fl.</b> —Alternating group flashing.
<b>Occ.</b> —Occulting.....	A steady light suddenly and totally eclipsed at regular intervals.	<b>Alt. Occ.</b> —Alternating occulting.
<b>Gp. Occ.</b> —Group occulting....	A steady light suddenly and totally eclipsed by a group of two or more eclipses.	

**W.**—White; **R.**—Red; **G.**—Green.

A flash is usually shorter than the duration of an eclipse.

An occultation is shorter than or equal to the duration of light.

Lights are characterized as flashing or occulting according to the relative durations of light and darkness and without reference to the type of illuminating apparatus employed or relative brilliancy.

In approaching a light of varying intensity, such as fixed varied by flashes, or alternating white and red, due allowance must be made for the inferior brightness of the less powerful part of the light. The first-named light may, on account of distance or haze, show flashes only, and the true characteristic will not develop until the observer comes within the range of the fixed light; similarly the second named may show as occulting white until the observer comes within range of the red light.

At short distances and in clear weather flashing lights may show a faint continuous light.

**Period** of a flashing or occulting light is the time required to go through the full set of changes, and is given in the column "Name, etc.—Character and period of light," and the details are stated in the column "Remarks—Fog signal."

The durations of light and darkness are computed, and may vary slightly.

**Visibility of lights.**—The distances at which lights may be seen in clear weather are computed in nautical miles for a height of the observer's eye of 15 feet above sea level. These distances may at times be increased by abnormal atmospheric refraction, and of course may be greatly lessened by unfavorable weather conditions, due to fog, rain, haze, or smoke. Weak lights and colored lights are easily obscured by such conditions.

Under certain atmospheric conditions, especially with the more powerful lights, the glare of the light may be visible beyond the computed geographic range. When approaching a high-power light, it evidently may be seen earlier from aloft.

The luminous range is given in this list when the light is not of sufficient power to be seen to the limit of its geographic range.

**Candlepowers of lights** are stated approximately in English candles. When the power of a light varies, as in the case of a white light with a red sector or a fixed light varied by flashes, the candlepower of both white and red, or fixed light and flash, is given.

**Light sectors.**—In some conditions of the atmosphere white lights may have a reddish hue; the mariner therefore should not trust solely to color where there are sectors, but should verify the position by taking a bearing of the light. On either side of the line of demarcation between white and red there is always a small sector of uncertain color, as the edges of a sector can not be cut off sharply.

When a light is cut off by adjoining land, and the arc of visibility is given, the bearing on which the light disappears may vary with the distance of the vessel from which observed. When the light is cut off by a sloping point of land or hill, the light may be seen over a wider arc by a ship far off than by one close to.

**Whistling and bell buoys** are operated by the action of the sea; therefore they sound irregularly, and in calm weather are less effective or may not be heard.

**Caution regarding buoys.**—Buoys are liable to be carried away, shifted, capsized, sunk, etc., lighted buoys may be extinguished, or whistling or bell buoys may not sound, as the result of storm or other natural causes, or collision, or other accidents.

**Buoy colors, numbers, and shapes.**—The following order is observed in coloring and numbering buoys:

In approaching the channel, etc., from seaward, **RED BUOYS**, with **EVEN NUMBERS**, are on the **STARBOARD** side, and **BLACK BUOYS**, with **ODD NUMBERS**, on the **PORT** side.

**BUOYS** with **RED** and **BLACK HORIZONTAL STRIPES** are on **OBSTRUCTIONS**, with **channelways** on either side of them, and may be left on either hand in passing.

**BUOYS with WHITE and BLACK PERPENDICULAR STRIPES** are in MIDCHANNEL, and may be passed close-to on either hand.

Nun buoys, properly colored and numbered, are usually placed on the starboard side, and can buoys on the port side, of channels.

**Day beacons** are constructed and distinguished with special reference to each locality, and particularly in regard to the background upon which they are projected. Beacons on the sides of channels, when practicable, are colored to conform to the coloring of buoys, subject to the above conditions as to background.

**Lighthouse tenders** when working on buoys in channels or other frequented waters may display a red flag (international signal-code letter "B") and a black ball at the fore, as a warning to other vessels to slow down in passing. Passing vessels will facilitate the work of the Department of Commerce by a proper observance of the signals.

**Abbreviations** designating the order or internal diameter of illuminating apparatus and kind of illuminants, etc.:

1=1st order.

2=2d order.

3=3d order.

$3\frac{1}{2}$ = $3\frac{1}{2}$  order.

4=4th order.

5=5th order.

6=6th order.

Ll=lens lantern.

Pl=post lantern.

Rf=reflector.

Rg=range lens.

mm=millimeter.

a=acetylene gas, compressed.

ac=acetylene gas, carbide to water.

cp=candlepower.

cw=clockwork.

ei=electric incandescent.

g=gas.

h=hand.

iov=incandescent oil vapor.

m=mantle.

o=oil in regular service lamp.

pc=primary cell.

pg=oil gas.

**EXAMPLES:** (4 iov)=4th-order lens with incandescent oil-vapor lamp; (200 mm pg m)=200-millimeter lens with oil gas and mantle.



## DESCRIPTION OF BUOYS.

Type and class.	Shape.	Diameter at water line.	Height above water line.	Draft. <sup>1</sup>	Least depth in which to moor.
		<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
Tall nun, first-class.....	Conical.....	5	13	17	28
Tall nun, second-class.....	Conical.....	4	11	15	22
Tall nun, third-class.....	Conical.....	3	8	11	18
Nun, first-class.....	Conical.....	6	8	5	15
Nun, second-class.....	Conical.....	4	2½	5	11
Nun, third-class.....	Conical.....	3	2	4	8
Tall can, first-class.....	Cylindrical.....	5	9½	17	25
Tall can, second-class.....	Cylindrical.....	4	7	15	22
Tall can, third-class.....	Cylindrical.....	3	5	11	15
Can, first-class.....	Approximately cylindrical.....	6	5	6	14
Can, second-class.....	Approximately cylindrical.....	4	4	4½	12
Can, third-class.....	Approximately cylindrical.....	3	2	4	8
Iron spar, first-class.....	Spar shaped.....	2½	15	37	34
Iron spar, second-class.....	Spar shaped.....	2	11½	30	27
Iron spar, third-class.....	Spar shaped.....	2	8	23	20
Wooden spar, first-class.....	Spar shaped.....	1½	18	30	18
Wooden spar, second-class.....	Spar shaped.....	1½	12	27	21
Wooden spar, third-class.....	Spar shaped.....	1½	8	20	32
Wooden spar, fourth-class.....	Spar shaped.....	¾	7	14	24
Bell buoy <sup>2</sup> .....	Has a flat deck nearly awash with pyramidal skeleton superstruc- ture supporting a bell.	8	8	6	27
Whistling buoy <sup>2</sup> .....	Conical, with whistle at top.....	8	11	20	16

<sup>1</sup> Do not exceed in any case.

<sup>2</sup> Sounded by action of the sea; intervals between strokes or blasts irregular.

Lighted buoys have cylindrical or conical bodies, which contain the gas, surmounted by superstructure with lantern, and in case of combination buoys have bell or whistle, as the case may be.

HURRICANE SIGNALS.—Two red flags, with black centers, hoisted one above the other on same staff, as a warning of an expected hurricane, will be displayed by the U. S. Weather Bureau at the following-named places: San Juan (Signal Tower and Weather Bureau Office), Arecibo, Aguadilla, Mayaguez, Guanica, Ponce (two stations—one in town and one at Playa), Jobos, Arroyo, Humacao, Vieques, Culebra, Fajardo, and Canovanas.

## PORTO RICO.

Name; mark on aid. Character and period of light.		Description. (Established, last rebuild.)	Depth, mean low water.	Remarks—Fog signal.
<b>SAN JUAN HARBOR.</b>				
<b>PORT SAN JUAN LIGHT STATION.</b> Fl. W., 10 sec.		Gray, square, brick tower, octagonal base; on Morro Castle. (3 lov) (1853) (1908)	<i>Feet.</i> .....	On Morro Point, east side of entrance to harbor. 181 feet high, visible 20 miles; 43,000 cp. Flash..... 1.3 sec. Eclipse... 8.7 sec.
RANGE.	CATAÑO FRONT LIGHT..... Fl. W., 1 sec. U.	White, square, py- ramidal house, on black piles. (1902) (L1 a) (1915)	11	Flash 0.3 sec. duration. Off south end of Bajos Reefs, west part of harbor. 25 feet high, visible 10 miles; 220 cp.
	CATAÑO REAR LIGHT..... F. W. U.	White; slatted day mark, on skeleton struc- ture. (L1 a) (1902) (1918)	.....	On shore, 1,395 yards 187½° from preceding. 56 feet high; 120 cp., visible 9 miles; visi- ble 45° on each side of range line.
<b>ENTRANCE GAS BUOY, 1.</b> Fl. W., 10 sec.		Black; spar- shaped. (200 mm a)	35	Flash 3 sec. duration. Off north point of Santa Elena Shoal. 13 feet high; 130 cp. visible 9 miles.
<i>Entrance Buoy, 2.....</i>		Red; 1st-cl. nun...	30	
<b>SANTA ELENA SHOAL GAS BUOY, 3.</b> Fl. W., 3 sec.		Black; flat float; skeleton super- structure. (200 mm a)	39	Flash 0.3 sec. duration. Off shoal, at turn in entrance to harbor. 10 feet high; 130 cp.
<i>Colnas Shoal Buoy, 4.....</i>		Red; 2d-cl. nun...	42	
RANGE.	ANEGADO SHOAL FRONT LIGHT. Fl. R., 1 sec. U.	Red; square, py- ramidal house, on piles. (L1 a) (1902) (1915)	7	Flash 0.3 sec. duration. On west side of shoal. 25 feet high; 120 cp.
	ANEGADO SHOAL REAR LIGHT. F. R. U.	Red; skeleton tower on house. (1902) (R1 a) (1918)	.....	On shore, about 3,375 yards 135° 40' from preceding. 52 feet high; 1,800 cp. Visible 45° on each side of range line.
<i>San Augustin Shoal Buoy, 5.....</i>		Black; 2d-cl. can..	30	Off shoal.
<i>50-Foot Channel Buoy, 6.....</i>		Red; 3d-cl. nun...	30	
<i>Tablazo Shoal Buoy, 8.....</i>		Red; 2d-cl. nun...	30	
<i>Puntilla Shoal Buoy, 7.....</i>		Black; 3d-cl. can..	30	
<b>PUNTILLA SHOAL LIGHT.....</b> Occ. W., 10 sec. U.		Black and gray pile. (Pl ei) (1916)	9	On edge of shoal. 10 feet high; 250 cp. Light..... 5 sec. Eclipse..... 5 sec.
<b>PUNTILLA POINT LIGHT.....</b> Occ. R., 10 sec. U.		Gray post ..... (1915) (ei) (1923)	.....	On south corner of Lighthouse Depot wharf. 10 feet high; 75 cp. Not visible north of 103° and 234°. Light..... 5 sec. Eclipse..... 5 sec.
<i>Tablazo Shoal Buoy, 10.....</i>		Red; 2d-cl. nun...	30	
<i>Tablazo Shoal Buoy, 12.....</i>		Red; 2d-cl. nun...	26	
<i>50-Foot Channel Buoy, 14.....</i>		Red; 3d-cl. nun...	30	
<i>Junction Buoy, 16.....</i>		Red; 2d-cl. nun, ball on top.	24	On west end of Punta Larga Shoal, at junction of channels in inner harbor.
<b>PUNTA LARGA SHOAL GAS BUOY, 18.</b> Fl. W., 1 sec.		Red; conical..... (150 mm a)	30	Flash 0.1 sec. duration. On west side of shoal. 6 feet high; 15 cp.
<i>Punta Larga Shoal Buoy, 20.....</i>		Red; 3d-cl. nun...	30	<i>Temporarily discontinued.</i>

## PORTO RICO.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>SAN JUAN HARBOR.</b>			
<i>Punta Larga Shoal Buoy, 22.</i> .....	Red; 3d-cl. nun...	<i>Feet.</i> 30	At northwest point of Isla Grande.
<i>Yaboa Shoal Buoy, 1.</i> .....	Black; 3d-cl. can..	18	On southwest edge of shoal.
<i>Anegado Shoal Buoy, 2.</i> .....	Red; 3d-cl. nun...	22	On north point of shoal.
<i>Largo Shoal Buoy, 4.</i> .....	Red; 3d-cl. nun...	22	
<b>COAST.</b>			
<i>Point Picua Whistling Buoy, 2.</i> ...	Red; conical.....	36	On north side of 15-foot shoal, about 1.5 miles north-northeasterly from point. Whistle sounded by action of sea.
<b>CAPE SAN JUAN LIGHT STATION.</b> Gp. Fl. W., 20 sec. 2 flashes.	Cylindrical tower on front of blue, rectangular dwelling; black band around base. (3 lov) (1885)	-----	On highest point of cape. 260 feet high, visible 22 miles; 22,000 cp. 1st flash..... 0.5 sec. Eclipse.... 4.5 sec. 2d flash..... 0.5 sec. Eclipse.... 14.5 sec. Period.... 20 sec.
<b>CUCARACHA LIGHT.</b> Fl. W., 10 sec. <b>U.</b>	Gray, cylindrical concrete tower; red lantern. (1916) (200 mm a) (1920)	-----	Flash 1 sec. duration. On one of the Cucarachas, 1.2 miles 20° from Cape San Juan Lighthouse. 32 feet high; 70 cp., visible 7 miles.
<b>FAJARDO HARBOR.</b>			
<i>Laja Shoal North End Buoy, 3.</i> ...	Black; 3d-cl. can..	18	
<i>Laja Shoal South End Buoy, 2.</i> ...	Red; 2d-cl. nun...	21	
<i>Fifteen-Foot Spot Buoy, 1.</i> .....	Black; 3d-cl. can..	14	
<b>ONAWAY SHOAL GAS BUOY, 5.</b> Fl. W., 1 sec.	Black; conical.... (150 mm a)	22	Flash 0.1 sec. duration. On northwest side of shoal. 6 feet high; 15 cp.
<i>Eleven-Foot Spot Buoy.</i> .....	Red and black; 3d-cl. can.	11	Marks shoal about 0.2 mile west from southwest point of Cayo Obispo.

## VIEQUES SOUND.

<b>LARGO SHOALS LIGHT.</b> Fl. W., 1 sec. <b>U.</b>	Black; triangular, skeleton, slatted structure. (1925) (150 mm a)	2	Flash 0.1 sec. duration. About midway of westerly shoal. 16 feet high; 15 cp., visible 5 miles.
<i>Ramos Cay Buoy, 2.</i> .....	Red; 2d-cl. nun...	28	
<i>Largo Shoals Buoy, 1.</i> .....	Black; 2d-cl. can..	27	
<i>Point Figuera Buoy, 4.</i> .....	Red; 2d-cl. nun...	42	On shoal spot, 2.7 miles 354° from Cabeza de Perro Light, on edge of red sector of light.
<i>Lavandera Shoal Buoy, 3.</i> .....	Black; 2d-cl. can..	24	
<i>Blake Shoal North Buoy, 2.</i> .....	Red; 2d-cl. nun...	60	
<i>Blake Shoal South Buoy, 1.</i> .....	Black; 1st-cl. can..	30	
<b>VIEQUES PASSAGE.</b>			
<b>CABEZA DE PERRO LIGHT.</b> Fl. W., 3 sec. <b>U.</b> R. sector.	Red; rectangular pyramidal skeleton structure, upper part slatted. (1922) (300 mm a)	-----	Flash 0.3 sec. duration. On east point of Cabeza de Perro Island. 50 feet high; W. from 161° to 21°, 150 cp., visible 9 miles; R. west of 21° and 161°, 45 cp., visible 6 miles.
<b>CABEZA DE PERRO GAS BUOY, 1.</b> Fl. W., 6 sec.	Black; spar-shaped. (200 mm a)	27	Flash 1 sec. duration. Southeast of Cabeza de Perro Island. 13 feet high; 130 cp., visible 9 miles.

## VIEQUES SOUND.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>VIEQUES PASSAGE.</b>			
CABRAS ISLAND LIGHT STATION. F. W.	Gray; square, stone tower. (1908) (6 o)	<i>Feet.</i> .....	On east end of island, northwest side of passage. 78 feet high; 110 cp., visible 9 miles.
Chinchorro Shoal Buoy, 2.....	Red; 3d-cl. nun...	30	On south side of shoal.
POINT MULAS LIGHT STATION.. Fl. W., 3 sec. U. 2 R. sectors.	White; octagonal tower in center of front of flat- roofed dwelling. (1885) (6 a) (1896)	.....	Flash 0.3 sec. duration. On point, east side of Port Mulas, north shore of Vieques Island. 68 feet high; W. 350 cp., visible 11 miles; R. 100 cp., visible 8 miles. <i>Red</i> from 68° to 107° covers Comandante Shoal, and Corona and Mosquito Reefs; from 122° to 141° covers Caballo Blanco.
POINT ARENAS GAS BUOY, 3. Fl. W., 3 sec.	Black; spar- shaped. (200 mm a)	45	Flash 0.3 sec. duration. On northwest end of Arenas Bank, west end of Vieques Island. 13 feet high; 130 cp., visible 9 miles.
Point Arenas Buoy, 2.....	Red; 3d-cl. nun...	24	On northwest side of 3-fathom shoal, about 850 yards south of end of Point Arenas.

## CULEBRA ISLAND.

GREAT HARBOR.					
EAST CHANNEL.	Range.	South Channel Entrance Buoy, 0.	Red; 1st-cl. nun...	42	Marks entrance to east and south channels.
		Los Crespos Buoy, 1.	Black; 2d-cl. can...	48	
		Shrimp Shoal Buoy, 2.	Red; 2d-cl. nun...	33	
		Grouper Shoal East Buoy, 3.	Black; 2d-cl. can...	47	
		Front Beacon, C.	White; pole with diamond, slatted target.	.....	On Point Colorada. 25 feet high.
		Rear Beacon, D.	White; square, slatted daymark on pyramidal skeleton tower.	.....	On hill, 750 yards 296° from preceding. 25 feet high.
		Snapper Shoal Buoy, 4.	Red; 3d-cl. nun...	30	
		Middle Ground Buoy, 5.	Black; 3d-cl. can...	27	
WEST CHANNEL.					
Inner Harbor Range.	Range.	Yellow Shoal Buoy, 2.	Red; 2d-cl. nun...	33	
		Front Beacon, E.	White; pole with diamond, slatted target.	.....	On Cemetery Point. 25 feet high.
		Rear Beacon, F.	White; square, slatted daymark on pyramidal skeleton tower.	.....	On hill, 1,200 yards 3° from preceding. 25 feet high.
INNER CHANNEL.	Range.	Point Colorada Buoy, 7.	Black; 3d-cl. can...	21	
		Point Carenero Buoy, 6.	Red; 3d-cl. nun...	30	
		Point Carenero Buoy, 8.	Red; 3d-cl. nun...	30	
		Point Cabras Buoy, 10.	Red; 3d-cl. nun...	30	

## CULEBRA ISLAND.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>THE SOUND.</b>			
<i>Middle Ground S. Buoy, 1</i> .....	Black; 3d-cl. can..	<i>Fet.</i> 36	
<b>Culebrita Island Light Station.</b> <b>F. W.</b>	Stone-colored; cylindrical tower on flat-roofed dwelling. (1886). (3½ iov)	.....	On summit of island, west side of Virgin Passage. 305 feet high; 4,300 cp., visible 19 miles. Obscured by N.E. Cay from 125° to 142°.
<b>SOUTH CHANNEL.</b>			
<i>Puercas Heads Middle Buoy, 3</i> ...	Black; 3d-cl. can..	40	
<i>Puercas Heads S W. Buoy, 5</i> .....	Black; 3d-cl. can..	49	
<i>South Channel Entrance Buoy, O.</i>	Red; 1st-cl. nun...	42	

## VIRGIN PASSAGE.

<b>SAIL ROCK LIGHT</b> ..... <b>Fl. W., 3 sec. U.</b>	Stone-colored foundation. (1922) (300 mm a)	.....	Flash 0.3 sec. duration. On summit of Sail Rock; 125 feet high; 150 cp., visible 9 miles.
<b>Culebrita Island Light Station.</b> <b>F. W.</b>	Stone-colored; cylindrical tower on flat-roofed dwelling. (1886) (3½ iov)	.....	On summit of island, west side of Virgin Passage. 305 feet high; 4,300 cp., visible 19 miles. Obscured by N.E. Cay from 125° to 142°.
<i>Culebrita Reef Buoy, 2</i> .....	Red; 2d-cl. nun...	42	
<i>Grampus Shoal North Buoy, 1</i> ....	Black; 2d-cl. can..	46	
<i>Grampus Shoal Buoy, 2 "GRAM-PUS."</i>	Red; 1st-cl. tall nun.	62	

## PORTO RICO.

<b>ENSENADA HONDA.</b>			
<b>CABRAS ISLAND LIGHT STATION.</b> <b>F. W.</b>	Gray; square, stone tower. (1908) (6 o)	.....	On east end of island, northwest side of Vieques Passage. 78 feet high; 110 cp., visible 9 miles.
<i>Point Cascajo Buoy, 1</i> .....	Black; 3d-cl. can..	20	About 1 mile easterly of point.
<i>Cabra de Tierra Buoy, 2</i> .....	Red; 2d-cl. nun...	24	About 0.2 mile southerly of Cabra de Tierra
<i>Point Cascajo Buoy, 3</i> .....	Black; 3d-cl. can..	28	About 0.7 mile northeasterly of point.
<b>HUMACAO HARBOR.</b>			
<i>Santiago Cay Buoy, 2</i> .....	Red; 3d-cl. nun...	18	On southwest end of shoal about 1 mile easterly of cay.
<i>Evelyn Shoal Buoy, 1</i> .....	Black; 3d-cl. can..	17	
<i>Parse Shoal East Side Buoy, 1PS.</i>	Black; 2d-cl. can..	27	
<i>Parse Shoal Buoy, 4</i> .....	Red; 3d-cl. nun...	18	On northwest end of shoal.
<b>PORT YABUCOA.</b>			
Range. {	Port Yabucoa Front Beacon...	White triangular daymark, black center, on white, pyramidal, skeleton tower; 40 feet high.	..... On shore at Playa de Guayanes. 50 feet above water.
	Port Yabucoa Rear Beacon...	White triangular daymark, black center, on pole; 16 feet high.	..... 230 yards 286½° from preceding. 80 feet above water.

## PORTO RICO.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>PORT YABUCOA.</b>			
<i>Yabucoa Harbor Entrance Buoy, 2.</i>	Red; 2d-cl. nun...	<i>Fect.</i> 30	
<i>Luckenbach Shoal Buoy, 1LS....</i>	Black; 3d-cl. can...	21	On east edge of shoal.
<i>Point Guayanes Shoal Buoy, 1....</i>	Black; 3d-cl. can...	18	On north side of shoal, southwest of point.

## EAST POINT, VIEQUES ISLAND, TO CAPE ROJO, PORTO RICO.

<b>VIEQUES ISLAND.</b>			
<b>Port Ferro Light Station.....</b> Fl. W., 5 sec.	White; octagonal tower on center of square, flat-roofed dwelling. (1899) (5 o)	.....	On outer point on west side of entrance to Port Ferro, south shore of Vieques Island. 68 feet high, visible 14 miles; 4,900 cp. Flash..... 0.2 sec. Eclipse... 4.8 sec.
<b>PORT REAL.</b> {	<i>Port Real Shoal Buoy, 1.....</i>	25	On east end of shoal, about 0.8 mile southwesterly of Cayo Real.
	<i>Port Real Shoal Buoy, 2.....</i>	25	On west end of shoal.
<b>PORTO RICO.</b>			
<b>Point Tuna Light Station.....</b> Gp. Fl. W., 120 sec. 2 flashes.	White; octagonal tower on square, flat-roofed dwelling. (1892) (3 iov)	.....	On point, east side of Port Maunabo. 110 feet high, visible 16 miles; 120,000 cp. 1st flash.. 6.0 sec. Eclipse 16.5 sec. 2d flash.. 6.0 sec. Eclipse 91.5 sec. Period 120 sec.
<b>Sargent Reef Buoy, 2.....</b>	Red; 2d-cl. nun...	24	On west end of shoal at entrance to Port Maunabo.
<b>Point Figuras Light Station... U.</b> Fl. W., 15 sec.	White; octagonal tower on center of flat-roofed dwelling. (5 a) (1889)	.....	Flash 3 sec. duration. On point, east side of Port Arroyo, south shore of east part of island of Porto Rico. 47 feet high; 500 cp., visible 12 miles.
<b>JOBOS HARBOR LIGHT STATION. U.</b> Fl. W., 3 sec.	White; rectangular, pyramidal skeleton; upper part slatted. (1902) (200 mm a) (1918)	.....	Flash 0.5 sec. duration. On east point of easternmost of Ratones Islands. 45 feet high; 130 cp., visible 9 miles.
<b>Muertos Island Light Station..</b> F. Fl. W., 30 sec.	Gray; cylindrical tower on center of flat-roofed dwelling. (1887) (3 iov)	.....	Fixed light with flash of 1.5 sec. duration every 30 sec. On summit of island. 297 feet high, visible 23 miles. F. 12,000 cp.; Fl. 56,000 cp.
<b>CARDONA ISLAND LIGHT STATION. U.</b> Fl. W., 3 sec.	White; cylindrical tower on center of front of flat-roofed dwelling. (1889) (6 a)	.....	Flash 0.3 sec. duration. On island, west side of entrance to Ponce Harbor. 46 feet high; 350 cp., visible 11 miles.
<b>GUANICA LIGHT STATION..... U.</b> Fl. W., 10 sec.	White; octagonal brick tower, on flat-roofed dwelling. (6 a) (1889)	.....	Flash 1 sec. duration. On Point Meseta, east side of entrance to Guanica Harbor. 117 feet high; 350 cp., visible 11 miles.
<b>CAPE ROJO LIGHT STATION.</b> F. Fl. W., 10 sec.	Gray; hexagonal tower attached to flat-roofed dwelling. (1868) (3 iov)	.....	Fixed light with flash of 1.3 sec. duration every 10 sec. On southeast point of cape. 121 feet high, visible 17 miles; F. 4,900 cp.; Fl. 43,000 cp.

## PORTO RICO, SOUTH COAST.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
PORT PATILLAS.			
Guayama Reef Buoy, 1.....	Black; 2d-cl. can...	<i>Feet.</i> 30	On east edge of reef.
Middle Ground West End Buoy, 2..	Red; 2d-cl. nun...	24	
Guilarte Shoal Junction Buoy....	Red and black; 2d-cl. nun, sur- mounted by ball.	26	On southeast end of Guilarte Shoal.
PORT ARROYO.			
Point Figuras Light Station... Fl. W., 15 sec. U.	White; octagonal tower on center of flat-roofed dwelling. (5 a) (1889)	.....	Flash 3 sec. duration. On point, east side of Port Arroyo, south shore of east part of island. 47 feet high; 500 cp., visible 12 miles.
Guayama Reef Buoy, 3.....	Black; 3d-cl. can...	24	
RANGE. {	PORT ARROYO FRONT LIGHT... F. R. U.	.....	On shore at Arroyo. 40 feet high; 1,000 cp.
	White slatted tri- angular day- mark, black center, on white, pyramidal, skeleton tower. (1925) (Rfel)	.....	
}	PORT ARROYO REAR LIGHT... F. R. U.	.....	1 mile 14° from preceding. 128 feet high; 1,000 cp.
	Black stack..... (1925) (Rfel)	.....	
PORT ARROYO SHOAL GAS BUOY, 1. Fl. W., 1 sec.	Black; conical..... (150 mm a)	28	Flash 0.1 sec. duration. On east edge of 23-fathom patch, 1.2 miles west from Point Figuras Lighthouse. 6 feet high; 15 cp., visible 5 miles.
Mareas Reef Bell Buoy, 1.....	Black; flat float; skeleton super- structure.	30	On south side of reef, about 1.9 miles 190° from Point Barrancas. Bell sounded by ac- tion of sea.
JOBOS HARBOR.			
Jobos Harbor Light Station. Fl. W., 3 sec. U.	White; rectangu- lar, pyramidal skeleton; upper part slatted. (1902) (200 mm a) (1918)	.....	Flash 0.5 sec. duration. On east point of easternmost of Ratones Islands. 45 feet high; 130 cp., visible 9 miles.
Entrance Buoy, 2.....	Red; 2d-cl. nun...	24	About 0.3 mile north of Morrillo Island.
Entrance Buoy, 1.....	Black; 2d-cl. can...	24	
Colchones Point Cut Buoy, 4.....	Red; 2d-cl. nun...	18	Marks southwest end of cut.
Colchones Point Cut Buoy, 6.....	Red; 3d-cl. nun...	18	} Mark northeast end of cut.
Colchones Point Cut Buoy, 3.....	Black; 3d-cl. can...	18	
POINT PETRONA TO PONCE HARBOR.			
Point Petrona Buoy, 2.....	Red; 3d-cl. nun...	18	About 1.7 miles southwesterly from point.
Berberia Island Buoy, 1.....	Black; 3d-cl. can...	18	About 0.4 mile north of north point of island
Muertos Island Light Station.. F. Fl. W., 30 sec.	Gray; cylindrical tower on center of flat-roofed dwelling. (1887) (3 lov)	.....	Fixed light with flash of 1.5 sec. duration every 30 sec. On summit of island. 297 feet high, visible 23 miles. F. 12,000 cp.; Fl. 56,000 cp.
Cayito Point Buoy, 4.....	Red; 3d-cl. nun...	36	
Jacaguas Landing Buoy, 3.....	Black; 3d-cl. can...	30	
Frio Island Buoy, 6.....	Red; 3d-cl. nun...	30	About 1.6 miles southeast from island.
Cabullon Point Buoy, 8.....	Red; 3d-cl. nun...	18	About 0.6 mile southwesterly from reef, making off point.

## PORTO RICO, SOUTH COAST.

Name; mark on aid. Character and period of light.		Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>PONCE HARBOR.</b>				
RANGE.	CARDONA ISLAND LIGHT STATION. Fl. W., 3 sec. U.	White; cylindrical tower on center of front of flat-roofed dwelling. (1889) (6 a)	Feet. .....	Flash 0.3 sec. duration. On island, west side of entrance to harbor. 46 feet high; 350 cp., visible 11 miles.
	PONCE HARBOR FRONT LIGHT Occ. R., 6 sec. U.	Red; square, pyramidal house, on pile structure. (L1 el) (1902) (1915)	9	About 200 yards south from end of Quartermaster's Landing. 25 feet high; 250 cp. Light..... 3 sec. Eclipse..... 3 sec.
	PONCE HARBOR REAR LIGHT Occ. R., 6 sec. U.	Red; triangular, slatted daymark, on post. (L1 el) (1902) (1915)	.....	On roof of Capitania (port captain's office), 315 yards 15° from preceding. 47 feet high; 250 cp. Visible 30° on each side of range line. Light..... 3 sec. Eclipse..... 3 sec.
	Tasmanian Shoal Bell Buoy, 2...	Red; flat float; skeleton superstructure.	17	On southwest edge of shoal. Bell sounded by action of sea.
	Cardona Island Shoal Buoy, 1....	Black; 2d-cl. can..	17	On southeast edge of shoal.
	Las Gatas Shoal Buoy, 4.....	Red; 3d-cl. nun...	42	Marks west edge of shoal making off from Las Gatas Island.
	Cayito Reef Buoy, 3.....	Black; 3d-cl. can..	20	Marks northeast end of reef.
<b>GUAYANILLA HARBOR.</b>				
	MARIA LA NGA GAS BUOY, 2. Fl. R., 1 sec.	Red; conical..... (150 mm a)	27	Flash 0.1 sec. duration. 6 feet high; 5 cp.
	Point Gotay Buoy, 4.....	Red; 3d-cl. nun...	24	
	La Mata Buoy, 6.....	Red; 3d-cl. nun...	24	
	Fuel Oil Station Buoy, 8.....	Red; 3d-cl. nun...	25	} Off Point Pepillo. Maintained by the Texas Company.
	Fuel Oil Station Buoy, 10.....	Red; 3d-cl. nun...	23	
	Port Guayanilla Buoy, 12.....	Red; 3d-cl. nun...	36	Marks 18-foot spot.
	Porto Rico Mercantile Co. Mooring Buoy.	White; 2d-cl. nun.	10	Maintained by Porto Rico Mercantile Co., San Juan, P. R.
<b>GUANICA HARBOR.</b>				
	GUANICA LIGHT STATION..... Fl. W., 10 sec. U.	White; octagonal brick tower, on flat-roofed dwelling. (6 a) (1889)	.....	Flash 1 sec. duration. On Point Meseta, east side of entrance to Guanica Harbor. 117 feet high; 350 cp., visible 11 miles.
RANGE.	GUANICA HARBOR FRONT LIGHT. F. R. U.	White; slatted daymark on skeleton tower. (P1 el) (1921)	.....	At Playa de Guanica. 35 feet high; 20 cp.
	GUANICA HARBOR REAR LIGHT. F. R. U.	Black; water tower. (P1 el) (1921)	.....	In Guanica. 1,150 yards 356° from preceding. 76 feet high; 20 cp.
	La Laja Shoal Bell Buoy, 2.....	Red; flat float; skeleton superstructure.	25	On west edge of shoal. Bell sounded by action of sea.
	Guanica Buoy, 4.....	Red; 3d-cl. nun...	19	On south point of shoal, southwest of Playa de Guanica.
	South Shore Buoy, 1.....	Black; 3d-cl. can..	18	
	Northwest Bay Buoy, 6.....	Red; 3d-cl. nun...	19	At outer entrance to Northwest Bay.



## PORTO RICO, WEST COAST.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>BOQUERON BAY.</b>			
<i>Enmedio Shoal South Buoy, 1.</i> .....	Black; 3d-cl. can..	<i>Feet.</i> 30	At south end of shoal, South Channel entrance to bay.
<i>Ramito Shoal Buoy, 4.</i> .....	Red; 3d-cl. nun...	23	On north end of shoal in bay.
<i>Enmedio Shoal North Buoy, 2.</i> .....	Red; 3d-cl. nun...	21	North Channel entrance to bay.
<b>MAYAGUEZ BAY.</b>			
<b>Point Jiguero Light Station...</b> Gp. Fl. W., 15 sec. 3 flashes.	<i>See page 16.</i>		
RANGE. MAYAGUEZ HARBOR FRONT LIGHT. U. Occ. R., 6 sec.	Pyramidal; lower half red; upper half white; on piles. (Ll ei) (1902) (1916)	12	23 feet high; 600 cp.; visible 30° on each side of range line. Light..... 4 sec. Eclipse..... 2 sec.
	MAYAGUEZ HARBOR REAR LIGHT. U. Occ. R., 6 sec.	.....	About 750 yards 109° from preceding. 55 feet high; 600 cp. Visible 30° on each side of range line. Light..... 4 sec. Eclipse..... 2 sec.
<i>Outer Manchas Buoy, 1.</i> .....	Black; 1st-cl. can..	24	
<i>Inner Manchas Bell Buoy, 3.</i> .....	Black; flat float; skeleton superstructure.	24	Bell sounded by action of sea.
<b>MANCHAS GRANDES GAS BUOY, 2.</b> Fl. W., 3 sec.	Red; cylindrical skeleton superstructure. (200 mm a)	36	Flash 0.3 sec. duration. On south side of entrance to Mayaguez Harbor. 12 feet high; 130 cp., visible 8 miles.
<i>Point Algarrobo Reef Buoy, 5.</i> .....	Black; 3d-cl. can..	30	Marks west edge of reef making off from point.
<b>GUANAJIBO CHANNEL.</b>			
<i>Casabe Shoal Buoy, 2.</i> .....	Red; 2d-cl. nun...	30	On point of shoal, about 1.2 miles west of Point Aguila.
<i>Point Melones Shoal Buoy, 1.</i> .....	Black; 3d-cl. can..	27	On south end of Resuello Shoals.
<i>Point Ostiones Buoy, 4.</i> .....	Red; 3d-cl. nun...	31	On southwest edge of 2½-fathom spot off point.
<i>Point Arenas Shoal Buoy, 6.</i> .....	Red; 3d-cl. nun...	21	On northwest edge of shoal off point.
<i>Point Guanajibo Shoal Buoy, 8.</i> ...	Red; 3d-cl. nun...	24	On west edge of shoal off point.
<i>Negro Bank Buoy, 3.</i> .....	Black; 2d-cl. can..	18	Marks north end of channel.

## MONA PASSAGE.

<b>CAPE ROJO LIGHT STATION.</b> F. Fl. W., 10 sec.	Gray; hexagonal tower attached to flat-roofed dwelling. (1868) (3 lov)	.....	Fixed light with flash of 1.3 sec. duration every 10 sec. On southeast point of cape. 121 feet high, visible 17 miles. F. 4,900 cp.; Fl. 43,000 cp.
<b>GALLARDO SHOAL GAS BUOY, 1.</b> Fl. W., 3 sec.	Black; cylindrical skeleton superstructure; 2d-cl. can buoy 100 yards 45° off. (200 mm a)	54	Flash 0.3 sec. duration. On southwest edge of shoal. 13 feet high; 130 cp., visible 9 miles.

## MONA PASSAGE.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>MONA ISLAND LIGHT STA- TION.</b> F. Fl. W., 120 sec.	Black; hexagonal pyramidal, skeleton, with central stair cyl- inder; connected to white dwell- ing with red roof. (2 iov) (1900)	<i>Feet.</i> .....	Fixed light with flash of 4.2 sec. duration every 120 sec. On East Cape, Mona Island. 231 feet high, visible 21 miles. F. 17,000 cp.; Fl. 71,000 cp. Light <i>illuminates entire</i> horizon, but to observers with eye 15 feet above sea light is obscured by high land of Mona Island, at distances <i>greater</i> than 9 miles, to geo- graphic limit of visibility of light from 55° to 181°. At distances <i>less</i> than 9 miles, light is shut out from 45°.
<b>TOURMALINE REEF GAS BUOY, 1 A.</b> Fl. W., 6 sec.	Black; spar- shaped; <i>2d-cl.</i> <i>can buoy 100</i> <i>yards 90° off.</i> (200 mm a)	33	Flash 1 sec. duration. Off west end of reef. 13 feet high, visible 9 miles; 130 cp.
<b>Point Jiguero Light Station...</b> Gp. Fl. W., 15 sec. 3 flashes.	Gray cylindrical tower. (1892) (4 iov) (1922)	.....	On point, making out between Mayaguez and Aguadilla Bays. 90 feet high, visible 15 miles; 24,000 cp. 1st flash... 0.7 sec. Eclipse... 1.8 sec. 2d flash... 0.7 sec. Eclipse... 1.8 sec. 3d flash... 0.7 sec. Eclipse... 9.3 sec. Period 15 sec.

## PORTO RICO, NORTH COAST.

<b>Point Jiguero Light Station...</b> Gp. Fl. W., 15 sec. 3 flashes.	<i>See above.</i>		
<b>POINT BORINQUEN LIGHT STATION.</b> Gp. Fl. W., 30 sec. 4 flashes.	Gray; cylindrical tower. (3 iov) (1889) (1920)	.....	On northwest part of island, about 1.3 miles northeast of Point Borinquen. 292 feet high, visible 24 miles; 32,000 cp. 1st flash... 1 sec. Eclipse... 4 sec. 2d flash... 1 sec. Eclipse... 4 sec. 3d flash... 1 sec. Eclipse... 4 sec. 4th flash... 1 sec. Eclipse... 14 sec. Period. 30 sec.
<b>ARECIBO LIGHT STATION.</b> F. W.	White; hexagonal tower attached to square, flat- roofed dwelling. (1898) (3 iov)	.....	On east side of entrance to Port Arecibo. 120 feet high, visible 17 miles; 7,300 cp.
Point Palmas Altas Beacon.....	White; triangular structure. (1921)	.....	On point; 23 feet high. Maintained by Plazuela Sugar Co.
<b>PORT SAN JUAN LIGHT STATION.</b> Fl. W., 10 sec.	Gray, square, brick tower, oc- tagonal base; on Morro Castle. (1853) (3 iov) (1908)	.....	On Morro Point, east side of entrance to San Juan Harbor. 181 feet high, visible 20 miles; 43,000 cp. Flash.... 1.3 sec. Eclipse... 8.7 sec.

## CUBA, SOUTH COAST.

Name; mark on aid. Character and period of light.		Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>GUANTANAMO BAY.</b>				
RANGE.	<b>Windward Point Light Station.</b> F. W.	White; cylindrical steel tower. (—) (4 ioy)	Feet. .....	On bluff point, east side of entrance to bay, east end of island. 94 feet high, visible 16 miles; 2,900 cp.
	<b>HICACAL BEACH FRONT LIGHT.</b> Fl. W., 1 sec. U.	White; skeleton tower, on pyramidal base. (1906) (L1 a) (1920)	.....	Flash 0.1 sec. duration. On beach, north side of entrance to bay. 35 feet high, visible 11 miles; 2,000 cp.
	<b>HICACAL BEACH REAR LIGHT.</b> Occ. W., 6 sec. U.	White; skeleton tower. (L1 a) (1906) (1920)	.....	400 yards 21½° from preceding. 58 feet high, visible 13 miles; 3,000 cp. Light. .... 3 sec. Eclipse. .... 3 sec.
	<i>Leeward Point Buoy, 1.....</i>	Black; 1st-cl. can..	84	
	<i>St. Nicholas Point Buoy, 3.....</i>	Black; 1st-cl. can..	28	
	<i>Fisherman Point Buoy, 2.....</i>	Red; 1st-cl. nun...	44	
RANGE.	<b>FISHERMAN POINT FRONT LIGHT.</b> F. R. U.	Red; skeleton tower, on pyramidal base. (1907) (L1 ei) (1920)	.....	On point east side of entrance to bay. 35 feet high; 220 cp.
	<b>FISHERMAN POINT REAR LIGHT.</b> F. R. U.	Red; skeleton tower. (L1 ei) (1907) (1920)	.....	On Corinaso Point, about 0.5 mile 101° from preceding. 45 feet high; 220 cp. Range marks turning point from Hicacal Beach Range line.
	<i>Hicacal Beach Shoal Buoy, 5.....</i>	Black; 2d-cl. can..	24	
	<i>Caracoles Point Shoal Buoy, 5½...</i>	Black; 2d-cl. can..	29	
	<i>Deer Point Buoy, 4.....</i>	Red; 2d-cl. nun...	46	
	<i>Caracoles Point Buoy, 7.....</i>	Black; 3d-cl. can..	30	
	<b>CARAVELA POINT LIGHT.....</b> Fl. W., 1 sec. U.	Black; 2-pile structure. (1925) (150 mm a)	6	Flash 0.1 sec. duration. Marks shoal off point. 16 feet high; 15 cp
	<i>Hospital Cay Reef Buoy.....</i>	Red and black; 3d-cl. can.	32	Off shoal south of Hospital Island.
	<i>Mangrove Point Buoy, 6.....</i>	Red; 2d-cl. nun...	34	
	<i>Three-Foot Lump Buoy, 8.....</i>	Red; 2d-cl. nun...	30	Marks north edge of shoal.
	<i>Eagle Channel Buoy, 9.....</i>	Black; 3d-cl. can..	22	Marks south entrance of channel.
	<i>Palma Point Shoal Buoy, 11.....</i>	Black; 3d-cl. can..	17	
	<i>North Medio Cay Shoal Buoy....</i>	Red and black; 3d-cl. nun.	22	Marks shoal off north end of cay.

## VIRGIN ISLANDS, ST. THOMAS ISLAND.

<b>ST. THOMAS HARBOR.</b>				
	<b>BUCK ISLAND LIGHT STATION.</b> Fl. W., 5 sec. U.	White; square tower. (5 a) (1916)	.....	Flash 0.5 sec. duration. On highest point of island. 125 feet high; 450 cp., visible 12 miles.
	<i>Packet Rock Buoy, 2.....</i>	Red; 2d-cl. nun...	60	On south side of rock in track between St. John Island and St. Thomas Harbor.
	<i>The Triangles Bell Buoy, 2.....</i>	Red; flat float; skeleton super-structure.	33	Off The Triangles Rocks. Bell sounded by action of sea.

## VIRGIN ISLANDS, ST. THOMAS ISLANDS.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>ST. THOMAS HARBOR.</b>			
<b>Muhlenfels Point Light Station.</b> Fl. W., 15 sec.	White; cylindrical tower. (5 a)	<i>Feet.</i> .....	On point, east side of entrance to harbor. 121 feet high; 960 cp., visible 14 miles.  Flash..... 2 sec. Eclipse... 13 sec.
RANGE. { <b>JUDGE BERGS FRONT LIGHT.</b> F. R.	White; square lamphouse. (Rfel)	.....	On Judge Bergs Hill. 197 feet high; 5,000 cp., visible 20 miles.
{ <b>JUDGE BERGS REAR LIGHT.</b> F. R.	White; square lamphouse. (Rfel)	.....	On Judge Bergs Hill, 150 yards 346° from preceding. 302 feet high; 5,000 cp., visible 20 miles.
<b>SCORPION ROCK GAS BUOY.</b> Fl. W., 3 sec.	Red an; black; cylindrical; skeleton superstructure. (150 mm a)	15	Flash 0.3 sec. duration. On shoal about center of entrance to harbor. 8 feet high; 15 cp., visible 4 miles.
<i>Rhode Bank Buoy, 4.</i>	Red; 2d-cl. nun....	30	Off Rhode Bank Shoal.
<b>RUPERT ROCK LIGHT.</b> Fl. R., 1 sec. U.	White; target on spindle. (1924) (150 mm a)	.....	Flash 0.1 sec. duration. Off Rupert Rock, which is painted white. 20 feet high; 5 cp.
<b>KINGS WHARF LIGHT.</b> F. G.	Lamp post.....	.....	On west end of jetty, 135 yards south of Kings Wharf, St. Thomas. 14 feet high; 10 cp.
<b>KINGS WHARF LIGHT.</b> F. R.	Lamp post.....	.....	On Kings Wharf. 22 feet high; 15 cp.
WEST GREGERIE CHANNEL.			
<i>Sandy Point Rock Buoy, 2.</i>	Red; 3d-cl. nun....	24	Off point, north end of Water Island.

## VIRGIN ISLANDS, ST. CROIX ISLAND.

<b>FREDERIKSTED HARBOR.</b>			
RANGE. { <b>FREDERIKSTED HARBOR FRONT LIGHT.</b> F. R.	White lamp post; red lantern. (el)	.....	On south side of inner end of wharf. 18 feet high; 75 cp.
{ <b>FREDERIKSTED HARBOR REAR LIGHT.</b> F. R. U.	Red lantern on white box. (ei) (1921)	.....	40 yards 90° from preceding. On front of customhouse. 24 feet high; 75 cp.
<b>NORTH COAST.</b>			
<b>HAMS BLUFF LIGHT STATION.</b> Gp. Fl. W., 20 sec. 2 flashes.	White; cylindrical tower. (41ov) (1915)	.....	On bluff. 394 feet high, visible 27 miles; 39,000 cp. 1st flash... 0.5 sec. Eclipse... 4.5 sec. 2d flash... 0.5 sec. Eclipse... 14.5 sec. Period. 20 sec. Visible from 53° to 265°; partly obscured from 53° to 62°.
<b>CHRISTIANSTED HARBOR.</b>			
<b>FORT LOUISA AUGUSTA LIGHT STATION.</b> F. R.	Lantern on white house with red roof. (Pl o)	.....	On Fort Louisa Augusta Point. 52 feet high; 20 cp., visible 5 miles.

## VIRGIN ISLANDS, ST. CROIX ISLAND.

Name; mark on aid. Character and period of light.		Description. (Established, last rebuilt.	Depth, mean low water.	Remarks—Fog signal.
<b>CHRISTIANSTED HARBOR.</b>				
MAIN CHANNEL.	Range.	Entrance Front Beacon....	Two white triangular daymarks, apex to apex, on pyramidal concrete base.	Feet. ..... 14 feet high.
		Entrance Rear Beacon....	Two white triangular daymarks, apex to apex, on pyramidal concrete base.	..... 20 feet high; 800 yards 164' from preceding.
	Range.	Scotch Bank Buoy, 1.....	Black; 2d-cl. can..	11 On northwest point of bank.
		Scotch Bank Buoy, 3.....	Black; 3d-cl. can..	14 On west point of bank.
		Great Middle Ground Buoy, 2..	Red; 2d-cl. nun...	17 On northeast point of shoal.
		Scotch Bank Buoy, 5.....	Black; 3d-cl. can..	..... On southwest point of bank.
		Anchorage Buoy.....	White; flat can....	11 } Maintained by Municipality of St. Croix, V. I.
		Anchorage Buoy.....	White; flat can....	17 }
		Great Middle Ground Buoy, 4..	Red; 3d-cl. nun...	18 On southeast point of shoal.
		Great Middle Ground Front Beacon.	Two white triangular daymarks, apex to apex, on pyramidal concrete base.	..... 14 feet high.....
		Great Middle Ground Rear Beacon.	Two white triangular daymarks, apex to apex, on pyramidal concrete base.	..... 50 feet high; 440 yards 90' from preceding.
		Round Reef Northeast Junction Buoy.	Red and black; 3d-cl. nun with spindle and ball.	14 On northeast point of reef.
EAST CHANNEL.	Range.	Anchorage Buoy.....	White; flat can....	18 Maintained by Municipality of St. Croix, V. I.
		Barracouta Ground Buoy, 6...	Red; 3d-cl. nun...	..... On point of shoal southeast of Barracouta Ground.
		Round Reef Northwest Buoy, 7..	Black; 3d-cl. can..	7 On northwest end of reef.
		Anchorage Buoy.....	White; flat can....	16 Maintained by Municipality of St. Croix, V. I.
		Protestant Cay Buoy, 9.....	Black; 3d cl. can..	13 On point of shoal at west end of Lagoon Bank.
		Anchorage Buoy.....	White; flat can....	9 Maintained by Municipality of St. Croix, V. I.
		Round Reef Southeast Buoy, 2.	Red; 3d cl. nun...	7 On southeast end of reef.
		Lagoon Bank Buoy, 1.....	Black; 3d cl. can..	11 On northwest point of bank.
		Anchorage Buoy.....	White; flat can....	11 } Maintained by Municipality of St. Croix, V. I.
		Anchorage Buoy.....	White; flat can....	11 }

## CARIBBEAN SEA, WEST PART.

Name; mark on aid. Character and period of light.	Description. (Established, last rebuilt.)	Depth, mean low water.	Remarks—Fog signal.
<b>NAVASSA ISLAND LIGHT STATION.</b> Gp. Fl. W., 30 sec. 2 flashes.	Light-gray; cylindrical tower. (1917) (4 iov)	<i>Feet.</i> -----	On highest point of Navassa Island, in passage between Haiti and Jamaica Islands. 395 feet high, visible 25 miles; 28,000 cp. 1st flash... 1.2 sec. Eclipse . 6.3 sec. 2d flash... 1.2 sec. Eclipse . 21.3 sec. Period. 30 sec. U. S. Weather Bureau mercurial barometer; call WWEA for correct atmospheric pressure reduced to sea level.
<b>QUITA SUEÑO BANK LIGHT.....</b> Fl. W., 3 sec. U.	Red; pyramidal skeleton tower on tankhouse. (1919) (375 mm a)	-----	Flash 0.3 sec. duration. On north end of bank. 45 feet high, visible 12 miles; 480 cp.
<b>SERRANA BANK LIGHT.....</b> Fl. W., 5 sec. U.	Red; pyramidal skeleton tower on tankhouse. (1919) (375 mm a)	-----	Flash 0.5 sec. duration. On Southwest Cay. 72 feet high; 480 cp., visible 12 miles.
<b>RONCADOR BANK LIGHT.....</b> Fl. W., 10 sec. U.	Red; pyramidal skeleton tower on tankhouse. (1919) (375 mm a)	-----	Flash 1 sec. duration. On Roncador Cay, north end of bank. 52 feet high; 480 cp., visible 12 miles.
<b>LITTLE CORN ISLAND LIGHT....</b> Fl. W., 6 sec. U.	Red; square pyramidal, skeleton tower. (1924) (375 mm a)	-----	Flash 0.5 sec. duration. Off coast of Nicaragua. 165 feet high; 480 cp., visible 12 miles. Maintained by Cuyamel Fruit Co.

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